CVDP ANNUAL AUDIT REPORT 2024

Department of Health & Social Care

CVDPREVENT

(Audit Period to March 2024)

Using data to drive cardiovascular disease prevention

HQIP
Healthcare Quality Improvement Partnership

The CVDPREVENT audit is commissioned by the Healthcare Quality Improvement Partnership (HQIP) as part of the National Clinical Audit and Patient Outcomes Programme (NCAPOP). HQIP is led by a consortium of the Academy of Medical Royal Colleges, and the Royal College of Nursing. Its aim is to promote quality improvement in patient outcomes and in particular, to increase the impact that clinical audits, outcome review programmes and registries have on healthcare quality in England and Wales. HQIP holds the contract to commission, manage and develop the National Clinical Audit and Patient Outcomes Programme (NCAPOP), comprising around 40 projects covering care provided to people with a wide range of medical, surgical and mental health conditions. The programme is funded by NHS England, the Welsh Government and with some individual projects, other devolved administrations and crown dependencies. **www.hqip.org.uk/national-programmes.**

The CVDPREVENT audit aims to support quality improvement in the prevention of cardiovascular disease (CVD) in primary care in England. The audit is delivered in partnership between NHS England, the Office for Health Improvement and Disparities (OHID) within the Department for Health & Social Care (DHSC), and the NHS Benchmarking Network (NHSBN). NHSBN work with the Patients Association to run a Patient Focus Group who provide the patient perspective to inform the audit.

Authors: Office for Health Improvement and Disparities (OHID) and NHS Benchmarking Network, December 2024

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INTRODUCTION

The Annual CVDPREVENT Audit Report presents analysis of GP recorded data for patients that are at high risk of cardiovascular disease (CVD). The audit measures how effectively these patients are being identified, diagnosed and treated in primary care in order to reduce their risk of admission or mortality due to CVD. Time series data is available to evaluate whether there have been improvements in the delivery of this care and data on patient demographics allows us to identify unwarranted variation and health inequalities.

ADDITIONAL LINKS AND BACKGROUND INFORMATION:

- **Background, aims, scope**
- **Acknowledgements**
- **Methodology**
- **Line of sight document**
- **Infographic summarising the nine key findings outlined in the section below**

This report looks at the results compared to the NHS Priorities and Operational Planning Guidance ambitions set out for 2023/24 and 2024/25 and focuses on patients with GP-recorded hypertension, lipid management, patients with GP-recorded atrial fibrillation (AF) and patients with GP-recorded CVD.

To access the full dataset and understand local achievement on the CVDPREVENT indicators, go to the **CVDPREVENT Data & Improvement Tool** for all breakdowns at national, regional, ICB, sub-ICB, PCN and practice levels. Throughout this report hyperlinks are provided to the data presented in the tool.

50 indicators are now calculated and published by the CVDPREVENT audit, not all of which are included in this report. Indicators highlighted in this report have been selected with support from the CVDPREVENT Clinical Lead, QI Lead and CVDPREVENT Steering Group in order to align with key national priorities and improvement opportunities.

Updates to the indicators over the last year include:

- Ten outcome indicators introduced in February 2024.
- Nine new indicators introduced to the audit in July 2024.
- Two new health inequality breakdowns were added for people with a diagnosed learning disability and people with a diagnosed severe mental illness.

For guidance and information on these indicators please read the **CVDPREVENT 2024 New Indicator Guide** and **CVDPREVENT Outcomes Indicators Guide.**

KEY FINDINGS AND RECOMMENDATIONS

The CVDPREVENT audit continues to highlight the importance of focusing on CVD prevention, health improvement, mortality reduction and the narrowing of inequalities. There is evidence of the unwarranted variation between ICBs as well as across demographic groups on a number of CVDPREVENT indicators which should be addressed. The nine key findings below have also been summarised in an infographic.

HYPERTENSION

Key finding 1:

In March 2024, 70.9% of patients with hypertension were treated to the age-appropriate threshold. This compares to 68.2% in March 2023. Nationally, the achievement was 6.1 percentage points below the 77% ambition set out in the **2023/24 NHS priorities and operational planning guidance** for achievement by the end of March 2024 and 9.1 percentage points below the new 80% target set out in the **2024/25 guidance** for achievement by the end of March 2025. Achievement across ICBs varied from 66.5% to 74.3%.

Key finding 2:

CVDPREVENT data showed that people in younger age groups were less likely to be treated to threshold than older groups. For example, younger working age groups (18 to 59) comprise approximately a quarter of people with hypertension and were less likely to be treated to threshold than older groups. Management of blood pressure to age-appropriate thresholds can help to reduce the complications of hypertension such as heart disease, stroke and cognitive dysfunction.

Key finding 3:

Note, this key finding uses data from 1st April 2023 - 31st March 2024 rather than 1st January 2023 - 31st December 2023. CVDPREVENT outcomes data highlighted admissions and mortality rates for patients with differing blood pressure levels. Between 1st April 2023 and 31st March 2024 people with 'high' and 'very high' risk blood pressures at the start of the period were more likely to die from CVD or be admitted to hospital for heart attack or stroke than those with lower risk blood pressures.

Key finding 4:

Across all of the outcomes indicators, the highest mortality and admission rates after adjusting for age were shown in the most deprived quintile, trending down to the lowest in the least deprived quintile. E.g. CVD mortality rates amongst patients with GP-recorded hypertension in 2023 were 539.9 per 100,000 person years in the most deprived quintile, which is more than twice the rate in the least deprived quintile which was 243.3 per 100,000 person years.

CHOLESTEROL

Key finding 5:

Looking at patients with no recorded CVD, in March 2024 62.1% of patients with a QRISK score over 20% and 53.0% of those with a QRISK score over 10% had a current prescription for lipid lowering therapy. Nationally, the 60% ambition for those with a QRISK score over 20% set out in the **2023/24 NHS priorities and operational planning guidance** was met, with a range of achievement across ICBs from 54.6% to 71.2%. This translates to 26 out of 42 ICBs meeting the 60% ambition.

Key finding 6:

In March 2024, 36.9% of patients with CVD had their blood cholesterol level treated to non-HDL cholesterol less than 2.5mmol/l or LDL-cholesterol less than 1.8mmol/l. This is an increase from 23.7% in March 2022 when the audit first began to measure this indicator. June 2024 data, which has been updated to measure against the newer NICE recommended threshold of low-density lipoprotein (LDL) cholesterol levels of 2.0 mmol/l or less, or non-HDL cholesterol levels of 2.6 mmol/l, showed a 45.5% achievement.

Key finding 7:

The **CVDPREVENT Third Annual Audit Report** highlighted that the black and mixed ethnic groups were least likely to be prescribed appropriate drug therapy, receive regular monitoring or be treated to threshold across multiple conditions and indicators. This pattern continued to be shown in March 2024 where, for example, 80.0% and 82.2% of patients with CVD in the black and mixed ethnic groups respectively had a current prescription for lipid lowering therapy compared to 89.9% and 85.2% in the Asian and white ethnic groups.

ATRIAL FIBRILLATION

Key finding 8:

91.5% of patients with GP-recorded AF and a CHA2DS2-VASc score of 2 or more had a current prescription for anticoagulation drug therapy in March 2024. This means that, nationally, the **90% ambition** set out alongside the **NHS Long Term Plan** has been met with 37 ICBs achieving it. The March 2024 achievement compares to 87.0% in March 2020 when the audit first began to report data.

CARDIOVASCULAR DISEASE

Key finding 9:

Mortality from a stroke in patients with CVD was highest in the black ethnic group when compared to other ethnic groups between 1st January 2023 and 31st December 2023. Mortality from a heart attack in people with pre-existing CVD was highest in the Asian ethnic group in the same period.

NATIONAL RECOMMENDATIONS

1. NHS England should revisit and strengthen the national ambitions for lipid management to focus on secondary prevention as well as primary prevention and primary care incentives should align to any revised ambitions (key findings 5,6).

2. ICBs should prioritise primary and secondary prevention of CVD through lipid management, taking a whole pathway approach and ensuring access to all NICE-approved lipid lowering therapies (LLTs). Efforts should continue to:

    - Prescribe LLTs to patients with high QRISK scores focusing on achieving the latest NHS Priorities and Operational Planning Guidance ambition (key finding 5).

    - Treat those with pre-existing CVD to the NICE-defined cholesterol threshold, ensuring that people have their lipids monitored as well as lowered (key finding 6).

    - Ensure equal access to LLTs for all demographic groups and communities (key finding 7).

3. ICBs should maintain blood pressure treatment to target as a key priority, in line with the NHS England objective in the 2024/25 Priorities and Operational Planning Guidance. They should focus on addressing unwarranted variation between PCNs and GP practices and prioritising patients with the highest blood pressures first as these are at the highest risk of CVD events (key findings 1,3). According to **Size of the Prize**, treating an additional 745,740 patients to reach an 80% achievement in England will prevent an estimated 4,475 heart attacks and 6,678 strokes saving over £125 million for the NHS in the next two years.

4. ICBs should address health inequalities in CVD prevention within their local population considering specifically, blood pressure control in the younger working age group (key finding 2), LLTs in females and people of black or mixed ethnicity (key finding 7), and those in the most deprived quintiles (key finding 4).

5. NHS England and Department for Health and Social Care should tailor future national ambitions taking into account potential growth in the detected prevalence of conditions and patient numbers alongside % achievement. This should factor in the growing scale of the ask on the NHS to manage these conditions and properly capture progress in delivery across the patient pathway.

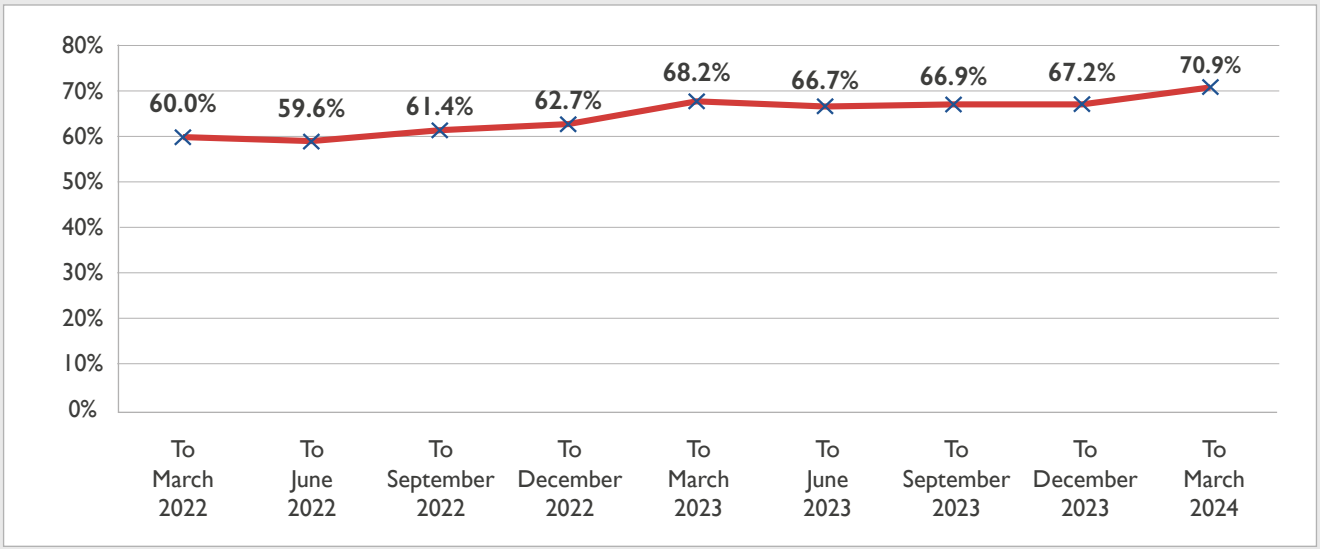
HYPERTENSION

KEY FINDING 1:

In March 2024, 70.9% of patients with hypertension were treated to the age-appropriate threshold. This compares to 68.2% in March 2023. Nationally, the achievement was 6.1 percentage points below the 77% ambition set out in the **2023/24 NHS priorities and operational planning guidance** for achievement by the end of March 2024 and 9.1 percentage points below the new 80% target set out in the **2024/25 guidance** for achievement by the end of March 2025[1]. Achievement across ICBs varied from 66.5% to 74.3%.

FIGURE 1:

Percentage of patients aged 18 and over, with GP-recorded hypertension, in whom the last blood pressure reading (measured in the preceding 12 months) is below the age appropriate treatment threshold.



The data showed that 29.1% of patients with hypertension were not treated to threshold, which is made up by 11.4% that did not have a blood pressure reading in the preceding 12 months and 17.7% that did have a recent blood pressure reading but were not reaching the age-appropriate threshold. However, we would want to highlight that when we assess the data only for those people that did have a blood pressure reading in the last 12 months, 80% had a latest blood pressure below age-appropriate treatment thresholds in March 2024 – this is an improvement of 3.6 percentage points since March 2022.

CVDPREVENT data also shows that the number of patients with diagnosed hypertension in the audit sample is increasing (8.2 million people in the audit sample in March 2024 compared to 7.9 million in March 2023). This is in line with national incentives **(Primary Care Network Directed Enhanced Service 2024/25)** to increase the diagnosis of hypertension in primary care, but it means that the scale of the task to manage high blood pressure is also increasing in primary care.

HEALTH INEQUALITIES

KEY FINDING 2:

CVDPREVENT data showed that people in younger age groups were less likely to be treated to threshold than older groups. For example, younger working age groups (18 to 59) comprise approximately a quarter of people with hypertension and were less likely to be treated to threshold than older groups. Management of blood pressure to age-appropriate thresholds can help to reduce the complications of hypertension such as heart disease, stroke and cognitive dysfunction.

(1) It should be noted that the NHS priorities and operational planning guidance recommends that NICE guidance is followed for treatment to threshold. There are some differences in NICE guidance when compared to the CVDPREVENT indicator which aligns with QOF e.g. NICE recommends a 140/90mmHg threshold for people over 80 years that have CKD which the CVDPREVENT indicator does not account for.

FIGURE 2:

Percentage of patients aged 18 and over, with GP-recorded hypertension, in whom the last blood pressure reading (measured in the preceding 12 months) is below the age appropriate treatment threshold (140/90 mmHg or less in patients 79 and under and 150/90mmHg or less in patients aged 80 and over).

Age (years)	18-39	40-59	60-79	80+
Proportion treated to threshold	52.7%	61.0%	72.7%	80.3%
Numerator (no. of patients treated)	99,858	1,231,057	3,146,752	1,348,030
Denominator (total no. of patients with diagnosed hypertension)	189,460	2,018,653	4,327,067	1,679,119

OUTCOMES

Since the publication of the Third Annual Audit Report, the audit has introduced outcomes indicators to measure admissions and mortality rates for patients included in the CVDPREVENT audit. For detail on the indicators and how they have been calculated, please refer to the **CVDPREVENT Outcomes Indicators Guide**.

KEY FINDING 3:

Note, this key finding uses data from 1st April 2023 - 31st March 2024 rather than 1st January 2023 - 31st December 2023. CVDPREVENT outcomes data highlighted admissions and mortality rates for patients with differing blood pressure levels. Between 1st April 2023 and 31st March 2024 people with 'high' and 'very high' risk blood pressures at the start of the period were more likely to die from CVD or be admitted to hospital for heart attack or stroke than those with lower risk blood pressures.

FIGURE 3:

	No measurement in the preceding 12 months	Treated to target	Moderate risk	High risk	Very high risk
Mortality from cardiovascular disease among patients with GP recorded hypertension in patients aged 18 to 79 (Age standardised rate per 100,000 person years)	349.1	334.2	343.3	480.5	831.6
Proportion of patients with GP recorded hypertension aged 18 to 79, who had a hospital admission with stroke as the primary cause (Age standardised)	0.35%	0.30%	0.40%	0.67%	1.28%
Proportion of patients with GP recorded hypertension aged 18 to 79, who had a hospital admission with heart attack (MI) as the primary cause (Age standardised)	0.27%	0.31%	0.39%	0.52%	0.81%

DEFINITIONS:

- **No measurement:** no valid blood pressure recorded in the last 12 months
- **Treated to target:** less than 140/90mmHg
- **Moderate raised BP:** over 140/90mmHg and under 160/100mmHg
- **High raised BP** over 160/100mmHg and under 180/120mmHg
- **Very high raised BP:** over 180/120mmHg

Patients who have readings that could place them in more than one category (due to the systolic and diastolic readings sitting in two different categories) are assigned to the highest-risk group. For example, a patient with a reading of 165/95mmHg would be included in the 'high raised BP' group.

The data highlights the increased risk for people with 'high' and 'very high' blood pressures, but it is also worth noting that the number of patients that sit in the 'moderate risk' group is much larger than the number in the 'high' and 'very high' risk groups combined. There are over three times as many people in the 'moderate' group (just under 1 million) compared to the combined 'high' and 'very high' groups (309,000).

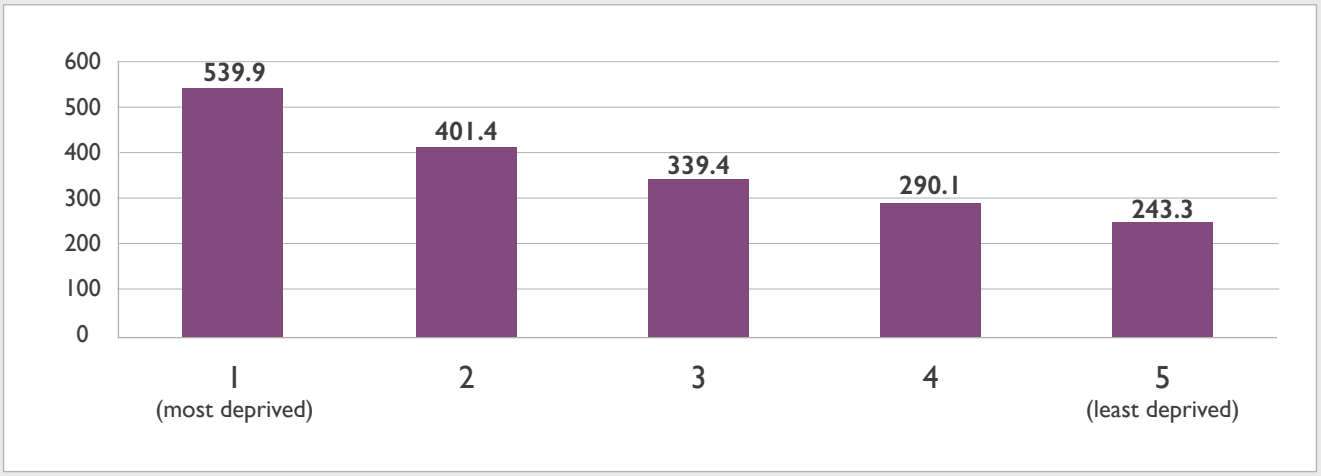
HEALTH INEQUALITIES IN OUTCOMES

KEY FINDING 4:

Across all of the outcomes indicators, the highest mortality and admission rates after adjusting for age were shown in the most deprived quintile, trending down to the lowest in the least deprived quintile. E.g. CVD mortality rates amongst patients with GP-recorded hypertension in 2023 were 539.9 per 100,000 person years in the most deprived quintile which is more than twice the rate in the least deprived quintile which was 243.3 per 100,000 person years.

FIGURE 4:

Mortality from cardiovascular disease among patients with GP-recorded hypertension in patients aged 18 to 79 (Age standardised rate per 100,000 person years).



CHOLESTEROL

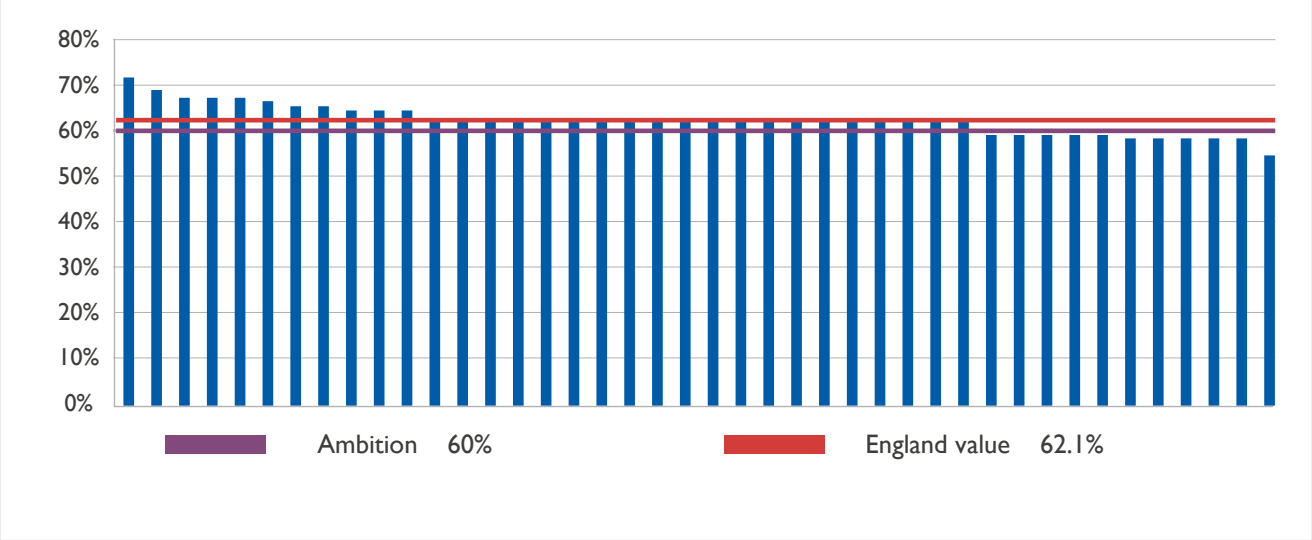
PRIMARY PREVENTION

KEY FINDING 5:

Looking at patients with no recorded CVD, in March 2024 62.1% of patients with a QRISK score over 20% and 53.0% of those with a QRISK score over 10% had a current prescription for lipid lowering therapy. Nationally, the 60% ambition for those with a QRISK score over 20% set out in the **2023/24 NHS priorities and operational planning guidance** was met, with a range of achievement across ICBs from 54.6% to 71.2%. This translates to 26 out of 42 ICBs meeting the 60% ambition.

FIGURE 5:

Percentage of patients aged 18 and over with no GP-recorded CVD and a GP-recorded QRISK score of 20% or more, on lipid lowering therapy - ICBs in England.



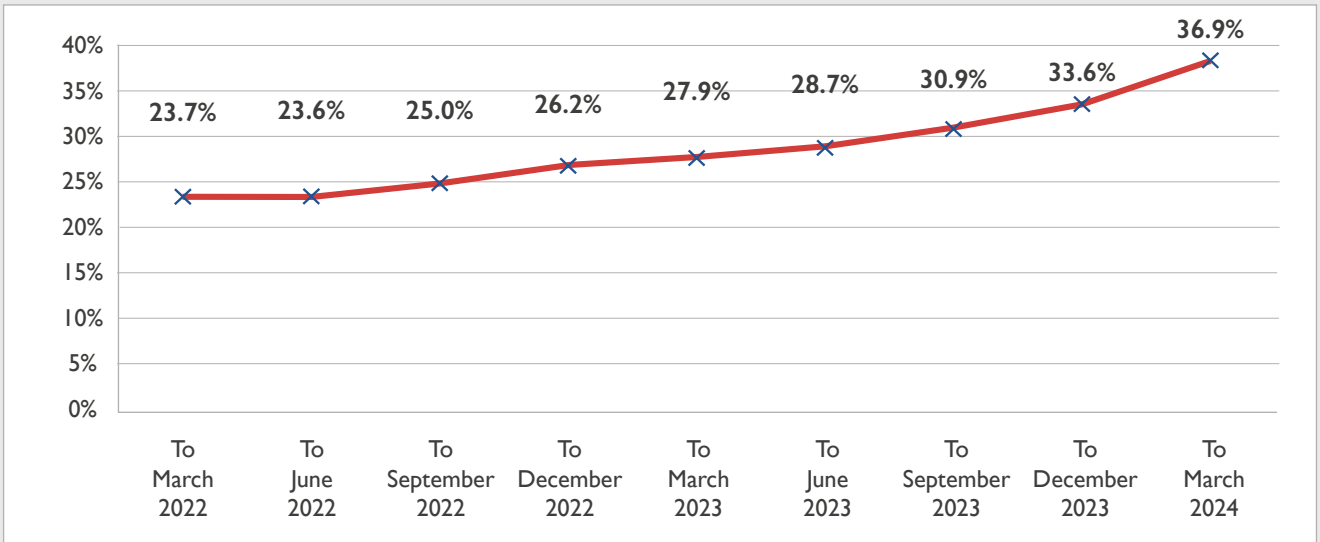
SECONDARY PREVENTION

KEY FINDING 6:

In March 2024, 36.9% of patients with CVD had their blood cholesterol level treated to non-HDL cholesterol less than 2.5mmol/l or LDL-cholesterol less than 1.8mmol/l. This is an increase from 23.7% in March 2022 when the audit first began to measure this indicator. June 2024 data, which has been updated to measure against the newer NICE recommended threshold of low-density lipoprotein (LDL) cholesterol levels of 2.0 mmol/l or less, or non-HDL cholesterol levels of 2.6 mmol/l, showed a 45.5% achievement.

FIGURE 6:

Percentage of patients aged 18 and over, with GP-recorded CVD (narrow definition), in whom the most recent blood cholesterol level (measured in the preceding 12 months) is non-HDL cholesterol less than 2.5mmol/l or LDL-cholesterol less than 1.8mmol/l.



Since March 2022, the CVDPREVENT audit has measured the percentage of patients with CVD in whom the most recent blood cholesterol level is non-HDL cholesterol less than 2.5mmol/l or LDL-cholesterol less than 1.8mmol/l. The indicator was introduced to QOF in 2023/24. However, in December 2023, NICE released a new recommended threshold of low-density lipoprotein (LDL) cholesterol levels of 2.0 mmol/l or less, or non-HDL cholesterol levels of 2.6 mmol/l and QOF adjusted their indicator to the same threshold for 2024/25. To align with NICE guidance and the QOF the audit has used the 2.5mmol/l and 1.8mmol/l thresholds up to the March 2024 extract and then updated to the new NICE/QOF threshold for the June 2024 extract which was published in October 2024 and showed a 45.5% achievement.

Note that if no non-HDL or LDL cholesterol test was done in the last 12 months, the patient with CVD would count as not being treated to target in the calculation of this indicator. A new indicator was introduced to CVDPREVENT in July 2024 to measure the proportion of patients with CVD that had a non-HDL or LDL cholesterol level recorded in the preceding 12 months. The March 2024 data showed that 79.2% of patients had a record of a non-HDL or LDL cholesterol level in the preceding 12 months. This will be an important contextual indicator to the QOF treatment to threshold indicator to understand the extent to which monitoring is driving improvement. Additional analysis on the group of patients with CVD that did have a lipid profile within the last 12 months showed that 47% were treated to non-HDL cholesterol less than 2.5mmol/l or LDL-cholesterol less than 1.8mmol/l.

The audit also looks at the proportion of patients with CVD who have a current prescription of a lipid-lowering therapy. In March 2024 85.1% of patients had a record of the prescription which compares to 82.2% in March 2023.

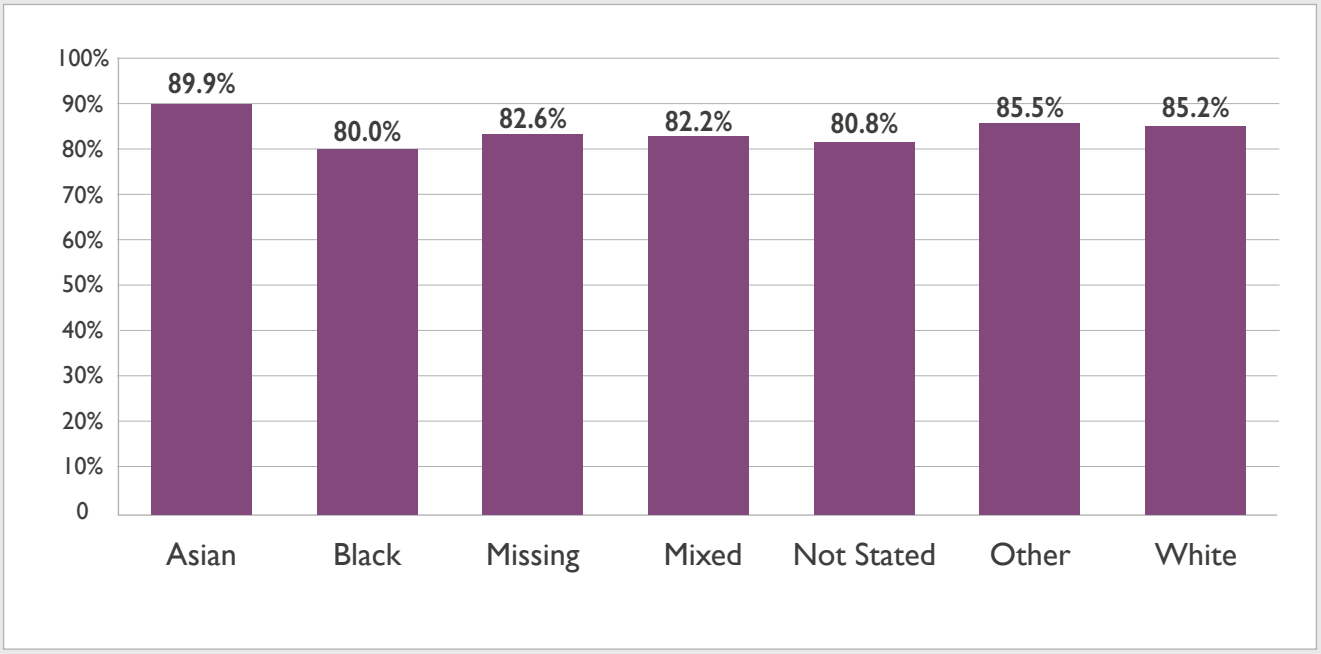
HEALTH INEQUALITIES

KEY FINDING 7:

The **CVDPREVENT Third Annual Audit Report** highlighted that the black and mixed ethnic groups were the least likely to be prescribed appropriate drug therapy, receive regular monitoring or be treated to threshold across multiple conditions and indicators. This pattern continued to be shown in March 2024 where, for example, 80.0% and 82.2% of patients with CVD in the black and mixed ethnic groups respectively had a current prescription for lipid lowering therapy compared to 89.9% and 85.2% in the Asian and white ethnic groups.

FIGURE 7:

Percentage of patients aged 18 and over with GP-recorded CVD (narrow definition), who are currently treated with lipid lowering therapy.



As well as highlighting inequalities between ethnic groups, the CVDPREVENT audit showed that there were inequalities between males and females in terms of lipid management for patients with CVD. A deep dive report was published by the CVDPREVENT audit in July 2024 looking into the differences shown between males and females which can be found **here.**

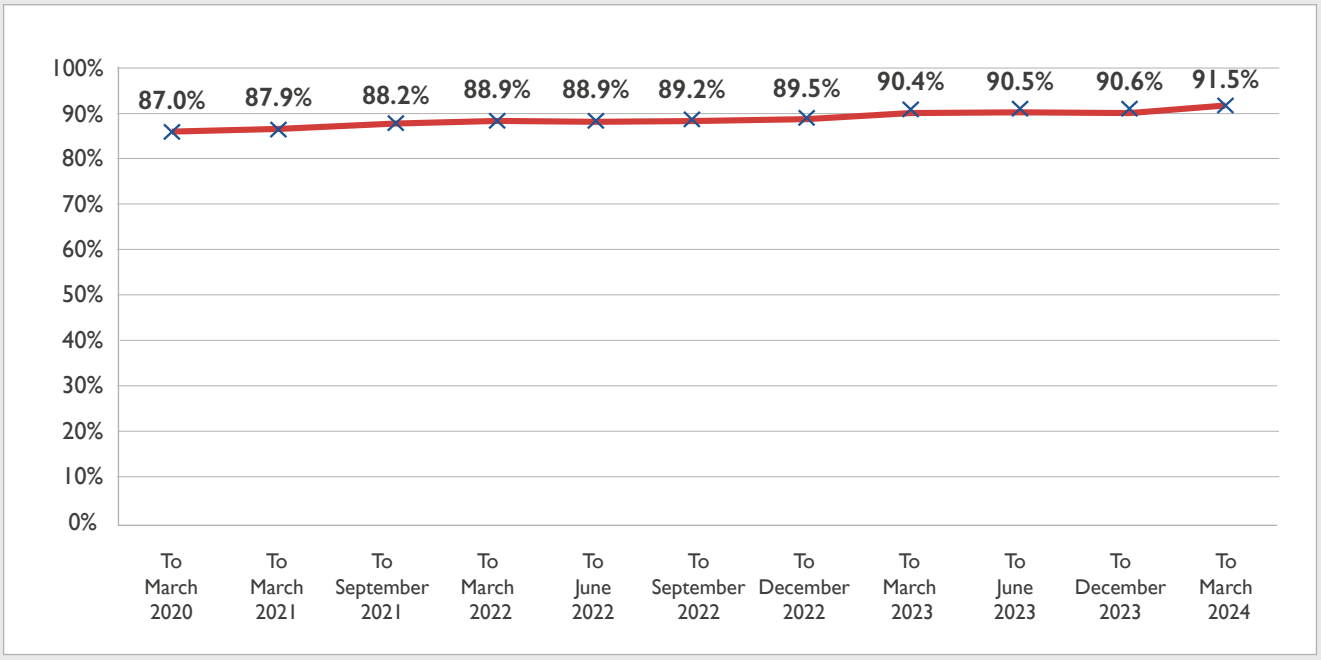
ATRIAL FIBRILLATION (AF)

KEY FINDING 8:

91.5% of patients with GP-recorded AF and a CHA2DS2-VASc score of 2 or more had a current prescription for anticoagulation drug therapy in March 2024. This means that, nationally, the **90% ambition** set out alongside the **NHS Long Term Plan** has been met with 37 ICBs achieving it. The March 2024 achievement compares to 87.0% in March 2020 when the audit first began to report data.

FIGURE 8:

Percentage of patients aged 18 and over with GP-recorded atrial fibrillation and a record of a CHA2DS2-VASc score of 2 or more, who are currently treated with anticoagulation drug therapy.



CVDPREVENT data shows that the number of patients with diagnosed AF in the audit sample is increasing (1,210,000 people in the audit sample in March 2024 compared to 1,170,000 in March 2023). This might show that identification of AF in primary care is improving but also shows that the scale of the task for GP teams to manage patients with AF is also increasing.

NICE guidance advises that oral anticoagulants are recommended for people deemed at a high risk of stroke, and direct-acting oral anticoagulant (DOAC) medication is prioritised, with vitamin K antagonists only offered if there is evidence that a DOAC is contra-indicated, not clinically indicated, or refused by the patient.

In July 2024, a new indicator was introduced into the audit to measure if DOACs are being appropriately prioritised. In March 2024, 89.6% of patients with AF and a CHA2DS2-VASc score of 2 were prescribed a DOAC or, where a DOAC was declined or DOAC is contraindicated or not indicated, a vitamin K antagonist. This indicator is similar to the AF008 indicator that is reported in Quality and Outcomes Framework (QOF) for more information on this indicator go to the **CVDPREVENT 2024 New Indicator Guide.**

HEALTH INEQUALITIES IN OUTCOMES

Patients with GP-recorded CVD were investigated in the CVDPREVENT outcomes indicators to measure mortality and admissions rates for this cohort of patients. The data shows differences between ethnic groups.

KEY FINDING 9:

Mortality from a stroke in patients with CVD was highest in the black ethnic group when compared to other ethnic groups between 1st January 2023 and 31st December 2023. Mortality from a heart attack in people with pre-existing CVD was highest in the Asian ethnic group in the same period.

FIGURE 9:

Mortality from a stroke among patients with GP-recorded cardiovascular disease (wide definition) in patients aged 18 and over (Age standardised rate per 100,000 person years).

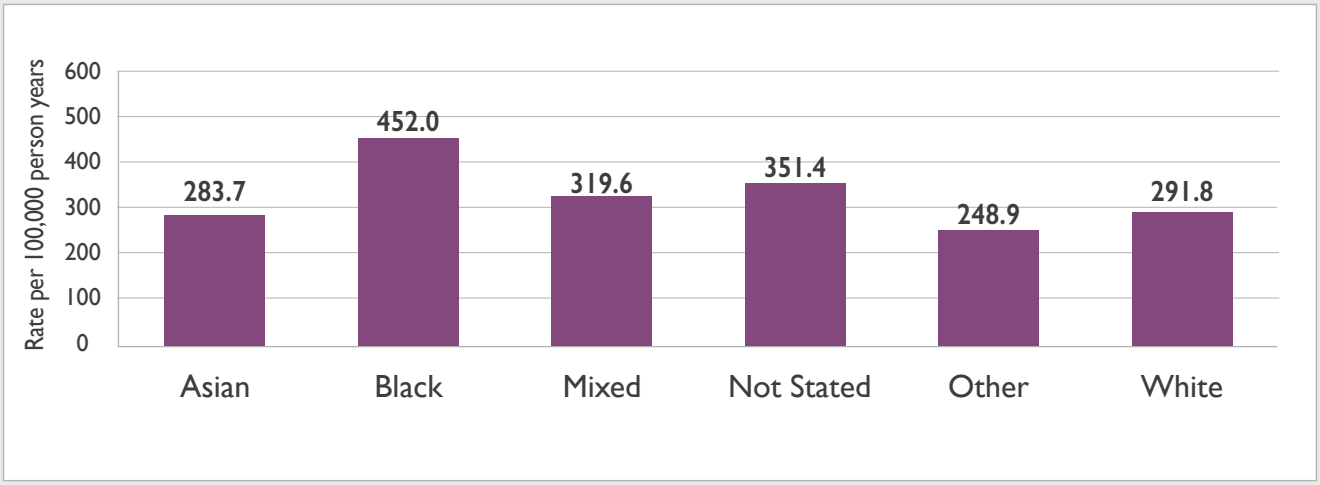
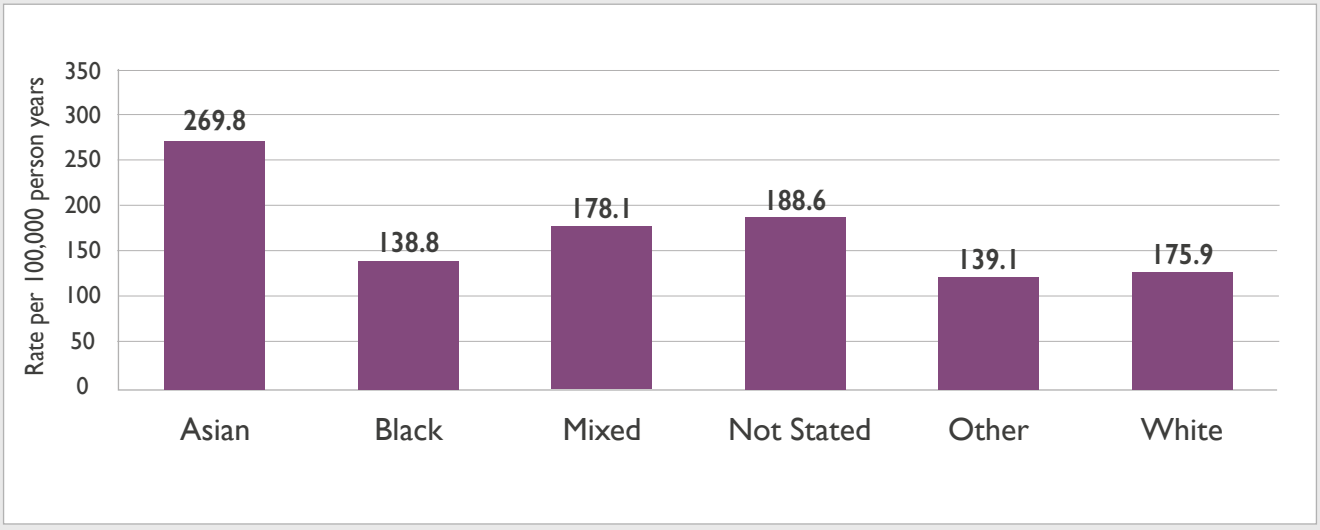


FIGURE 10:

Mortality from heart attack (MI) among patients with GP-recorded cardiovascular disease (wide definition) in patients aged 18 and over (Age standardised rate per 100,000 person years).



CVDPREVENT only looks at a sample of patients as it links the cohort of patients collected by the audit in primary care (i.e. people who are recorded by their GP as being at-risk of CVD) to their outcomes in mortality data. These findings do largely align with population level findings (looking at all deaths across England) reported by ONS which show that people in Asian ethnic groups have the highest mortality from heart attack and people in black ethnic groups have the highest mortality from stroke, although ONS report a larger mortality rate from stroke in the Asian ethnic group than is found by CVDPREVENT.

AUDIT RESOURCES

CVDPREVENT data provides clear evidence of the areas that need to be addressed across a number of CVD prevention indicators. Data across all indicators included in the audit is published quarterly.

Resources are also available to support Quality Improvement.

REGIONAL AND ICS INSIGHTS

A high level overview of indicators for regions and Integrated Care Systems.

See the indicators

QI TOOL

See an overview of the data specific to your STP, CCG, PCN or Practice.

Discover opportunities

DATA EXPLORER

Explore the data, indicator-by-indicator, through different visualisations.

Explore the data

OUTCOMES

Investigate the health outcomes of the CVDPREVENT audit patients.

Review outcomes